

Appl. No. 09/545,336
Amdt. dated April 24, 2004
Reply to Office Action of February 24, 2004

REMARKS:

Status of claims:

Claims 1 through 11 stand rejected. Claims 1 and 2 have been amended to recite "and" before the last recited element or step. Claim 7 has been amended to depend from claim 4, in order to overcome the objection for failing to further limit the subject matter of a previous claim. Claim 10 has been amended to overcome the section 112 rejection to recite that the prerecorded representation comprises a plurality of facial images of the individual. Support for this amendment is found on pages 20-21.

Argument

• **Claims 1 and 2**

In his February 4, 2004, Office Action, the Examiner maintained the rejection of claims 1 and 2 under 35 U.S.C. § 103(a) over Morinaga (USPN 6,137,685) in view of Wang (USPN 6,038,333). Applicants again respectfully ask the Examiner to reconsider the rejection. In particular, Applicants wish to draw the Examiner's attention to a significant limitation that is nowhere suggested or appreciated by either Morinaga, Wang, or the combination of the two references. See MPEP 2143.03 ("All Claim Limitations Must Be Taught Or Suggested").

Claims 1 and 2 separate the physical structure used to capture the image from the physical structure used to analyze the image representation to recognize an individual. A portable smart card is used to capture the image. A central processor housed in a separate structure is used to recognize the image.

To establish a prima-facie case, there must be some "teaching, suggestion, or reason" to combine Morinaga and Wang in a manner that meets the claims' requirement of separate structures for performing the image capturing and image recognition functions.

To date, no evidence has been presented of any motivation to combine Morinaga with Wang *in a manner that would keep the two structures separate*. To date, the only motivation articulated for combining Morinaga and Wang is "to provide a person identifier and management system that is portable, personal, and easy to use to assist a user in recognizing or recalling people the user has previously met, retrieve personal-identifying information from a database in accordance with an input face image, or searching a face image database for similar faces in order to identify the input face." OA, at ¶ 12.

Because Wang is already "portable, personal, and easy to use," this objective does not provide any suggestion, teaching, or motivation to modify Wang in view of

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Morinaga. But assuming (without admitting) that there is some suggestion, teaching or motivation to modify Morinaga in view of Wang¹ in order to address Morinaga's so-called "deficiencies," OA, at ¶ 4, then the question must be asked: *How would Wang address Morinaga's deficiencies? Stated another way, how would Wang suggest that Morinaga be modified?*

Wang teaches that "[t]he person identifier and management system 10 can be a single stand-alone device or implemented in a computer or computer-enabled system." Wang, col. 4, lines 2-5. Wang also teaches that the system 10 can have I/O devices such as a "network adaptor for network communications." Wang, col. 5, lines 47-48. Even though Wang teaches that the hand-held device can be connected with or communicatively coupled to other pieces of hardware, Wang at all times teaches that the facial image database, image-capturing hardware, and facial image recognition software all be kept together on the hand-held system 10:

The person identifier and image system includes an image database that stores face feature data of each of a number of face images and person-identifying data associated with each of the face images. An image capturing system is also included for capturing an input face image. A face analysis system is then coupled to the image capturing system and the image database to locate and retrieve the person-identifying data of any stored face image similar to the input face image from the image database. (Col. 2, lines 32-45).

As can be seen from FIGS. 2 and 3A-3B, the hand-held portable personal person identifier and management system 20 includes a touch-sensitive screen display 22 that allows display of the input face image 24 and the retrieved person-identifying data 25 and a digital camera 23 *that is an integrated part* in the hand-held portable personal person identifier and management system 20. (Col. 8, lines 19-25).

Application of Wang's teaching (of integration of all of these functions) would require that Morinaga be modified so that the image-capturing and recognition functions would both be performed on the "card shaped information medium 28." As noted earlier, Morinaga's "card shaped information medium 28" may be equipped with "an electronic camera 28" and a "memory function or the like." Col. 1, lines 12-30; col. 5, lines 38-43. Moreover, the Examiner himself has argued that there is no reason why Morinaga's card could not perform the image recognition processing: "[I]t is obvious if not inherent that the images are stored and/or processed on the card itself." OA, at ¶ 3 (emphasis added).

¹ Applicants are not aware of any "actual evidence" of a suggestion, teaching, or motivation to modify Morinaga in view of Wang. *In re Dembiczaik*, 175 F.3d 994, 999 (Fed. Cir. 1999). Furthermore, Applicants do not believe that a motivation to combine two references can be presumed, without some express teaching in support thereof, if one of the two references already achieves the object of the presumed motivation.

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A modification of Morinaga, as suggested by Wang, would not read on claims 1 or 2. Wang teaches the integration of the image capturing and image recognition functions. This, in fact, teaches away from the limitation, in claims 1 and 2, requiring these functions to be performed by physically independent structures.

For these reasons, no *prima facie* obviousness rejection based on the combination of Wang with Morinaga can be maintained. Applicants therefore respectfully request withdrawal of the rejection of claims 1 and 2.

- **Claims 3-11**

The Examiner rejected newly presented claims 3-11 over U.S. Patent No. 5,623,552 to Lane. Applicants respectfully traverse these rejections. Claim 3 requires that biometric information be captured by a sensor on the card but that authentication be done *remotely*, by another processor, away from the smart card. The first-noted object and very title of Lane, "Self-Authenticating Identification Card With Fingerprint Identification," teaches away from this aspect of the claimed invention:

It is therefore an object of the present invention to provide an identification card *which does not require external equipment for identity verification.* (Col. 2, lines 10-13) (emphasis added).

In the background section, Lane criticized several prior art references that required external identity verification equipment because they "dramatically increase[d] the costs and complexity associated with an identification card system." Col. 2, lines 1-2.

Lane provides a self-authenticating card that stores prerecorded biometric information, captures new biometric information, and compares the data. If it finds a match, it loads the card's account information onto a programmable magnetic stripe that could be read by any conventional card reader. The card automatically clears the information off of the magnetic stripe after a predetermined elapsed time, so that if the card falls into the wrong hands, it will be inoperable. Col. 2, lines 54-63; col. 5, line 62 – col. 6, line 12. One of Lane's greatest apparent benefits is that banks could issue Lane's credit cards without waiting for stores to upgrade their own card-reading equipment. See Col. 9, line 35 – col. 10, line 3. Without having to install their own identity verification equipment, "stores and credit companies would finally have a stable mode of compensation for their goods and services," and card users would be protected from identity theft. Col. 4, lines 11-14.

The Manual of Patent Examining Procedure (MPEP) instructs that "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." MPEP § 2143.01. That

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MPEP section also states that “[t]he proposed modification cannot render the prior art unsatisfactory for its intended purpose.” *Id.*

The principle of operation and intended purpose of Lane is, as suggested by its title, to provide a *self-authenticating card*. The Examiner’s proposed modification would dramatically change Lane’s principle of operation and purpose. It would also render Lane’s credit card embodiment useless without a significant upgrade of retailers’ verification equipment. Therefore, Applicants respectfully submit that there is no *prima facie* case of obviousness.

Applicants do not lightly dismiss the Examiner’s argument that “it would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit the prerecorded representation of biometric data and the biometric data captured by the sensor to an external communications port to be verified in order to save space on the personal identification device for the sensor, memory, and power source by processing the data in an external device.” OA, at ¶ 16.

Nevertheless, Lane’s own teachings, purpose, and principle of operation, clearly teaches away from this modification. It would, among other things, “dramatically increase the costs and complexity associated with an identification card system,” especially for retailers. Lane also teaches that this modification would increase the risk of a security breach. Indeed, such a modification would expose the biometric template to capture.

But even if a person of ordinary skill in the art believed that the object of “sav[ing] space on the personal identification device,” overrided Lane’s own teachings, purpose, and principle of operation, then that person would presumably modify Lane so that it would only store the prerecorded biometric reference data. The cost of mass producing personal identification devices would be minimized by equipping external identity verification devices with biometric sensors to capture data from a user and compare it with prerecorded biometric data stored on the user’s personal identification device. That way, a single biometric sensor on an external device (installed, say, at the entrance to a company’s plant) could be used with thousands of personal identification devices.

But such an extensive modification of Lane would not read on claim 3. Even assuming that Lane can be modified in a manner that contradicts its express teachings, no actual evidence of any teaching, motivation, or suggestion has been provided for modifying it only part-way, i.e., by providing a combination of (a) smart card and an (b) external device, where the smart card (a-1) stores the user’s prerecorded biometric data, (a-2) captures new biometric data from the user, and (a-3) transmits both data sets to the external device, and where the external device (b-1) compares the two data sets to authenticate or identify the user.

Applicants respectfully ask that the section 103 rejections be withdrawn.

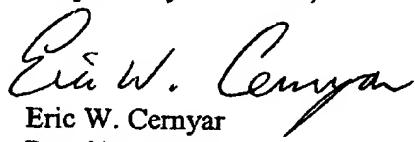
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Conclusion

Believing that all things raised in the Examiner's February 24, 2004, Office Action have been addressed, the undersigned respectfully requests withdrawal of the rejections of claims 1-11 and allowance and issuance of the application.

No fees are believed to be required for this response. The Commissioner, however, is authorized to deduct any fees that may be required from Eric W. Cernyar, P.C.'s deposit account no. 502906.

Respectfully submitted,



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